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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,856	05/05/2005	Uwe Klippert	54590/DBP/M521	7895
23363 7590 06/06/2007 CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			EXAMINER MOK, ALEX W	
			ART UNIT 2834	PAPER NUMBER
			MAIL DATE 06/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/533,856	KLIPPERT, UWE	
	Examiner	Art Unit	
	Alex W. Mok	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment

1. Acknowledgement is made of Amendment filed April 18, 2007.
2. The amendments to the specification have been acknowledged in the Amendment filed April 18, 2007.

Drawings

3. The drawings were received on April 18, 2007. These drawings are acceptable.

Claim Objections

4. Claims 11 and 13 objected to because of the following informalities: in claim 11, the term "a support element" should be changed to "the support element" if referring to the same support element as in claim 1; and for claim 13, it is unclear if applicant meant for the rotor discs to be facing the end faces of the stator rather than being **mounted** on the end faces, since the rotor discs would be unable to rotate if the rotor discs were **mounted** on the end faces of the stator. For the purposes of examination, the particular term "a support element" in claim 11 will be assumed to be the same as that in claim 1, and the rotor discs of claim 13 will be considered to be facing the end faces of the stator. Appropriate correction is required.

Claim Rejections - 35 USC § 103

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 5, 11, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. (US Patent No.: 4007390), and further in view of Sesselmann et al. (PCT Publication No.: WO 120753 A1).

For claim 1, Muller et al. teach a drive device (figure 3) which can be used for adjusting devices in motor vehicles, comprising an axial field motor having a motor shaft (figure 3) wherein the motor shaft (reference numeral 55) is mounted rotatably to a housing (reference numeral 73) of the axial field motor via a plate (reference numeral 68), which constitutes a support element, comprising a number of radial webs which are inherently formed when two or more coils (reference numerals 69, 70) are on the plate, such that radial forces stemming from the motor shaft are introduced into the housing through positive locking regions (reference numerals 76, 77) extending axially from the radial webs. Muller et al. does not teach a gear mechanism connected to the motor shaft and with a drive element of the adjusting device.

Sesselmann et al. teaches a drive for adjustment devices having a gear mechanism connected to the shaft (reference numeral 10, see figure 1b) and having a drive element (reference numeral 4, see figure 4).

It would have been obvious to include the gear mechanism connected to the motor shaft and a drive element of the adjusting device in the invention of Muller et al.,

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since Sesselmann et al. uses this technique for a drive for adjusting devices in motor vehicles (see the Abstract), the same technological field as the claimed invention.

For claim 2, the illustration of figure 3 in Muller et al. shows the plate (i.e. support element) supported on the periphery of the axial field motor, which constitutes the radial webs being supported on the periphery of the motor.

For claim 5, the invention of Muller et al. has axially extending locking regions that connect with the housing as explained for claim 1 above, which makes it inherent that the positive locking regions of the radial webs (formed on the plate of Muller et al.) would engage in the recesses of the housing.

For claim 11, the plate referenced by numeral 68 (i.e. support element) in Muller et al. is a part of the stator of the motor as illustrated in figure 3.

For claim 14, Sesselmann et al. teaches a motor shaft (reference numeral 10, see figure 1b) connected to a pinion (reference numeral 26) designed as a spur wheel gear, so it would have been obvious to include this configuration in the invention of Muller et al. for the same reasons given for claim 1 above.

For claim 18, the references of Muller et al. and Sesselmann et al. teach the drive element, the drive device comprising an axial field motor having a motor shaft, the gear mechanism connected to the motor shaft and with a drive element of the adjusting device, the motor shaft being mounted rotatably to a housing of one of the drive device and the axial field motor via a support element comprising a number of radial webs, and the radial forces stemming from the motor shaft being introduced into a said housing through positive locking regions extending axially from said radial webs as explained for

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claim 1 above. Therefore it would have been obvious to have an adjusting device in motor vehicles having the components mentioned above, since Muller et al. and Sesselmann et al. disclose these elements, and a person of ordinary skill in the art would be able to construct an adjusting device using the components of Muller et al. and Sesselmann et al.

7. Claims 3, 4, and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. and Sesselmann et al. as applied to claim 1 above, and further in view of Blanchard et al. (US Patent No.: 4866321).

For claim 3, the inventions of Muller et al. and Sesselmann et al. disclose the claimed invention except for the axially extending locking regions having radially aligned end ribs on the webs which engage in positive locking elements of the housing. Muller et al. discloses axial locking regions (reference numerals 76, 77) but does not have radial ribs at the end of the webs. Blanchard et al. discloses bolts/screws (reference numerals 36, 38) that are fastened at the ends of the stator assembly (see figure 5), in which the bolts can constitute the radially aligned end ribs.

It would have been obvious to use the bolts/screws as radially aligned end ribs in combination with the axial locking regions as disclosed by Muller et al., since a person of ordinary skill in the art at the time the invention was made could use the technique used by Blanchard et al. for engaging in the positive locking elements of the housing of the claimed invention.

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For claim 4, when the bolts/screws disclosed in the invention of Blanchard et al. is used in the axial locking regions of the invention of Muller et al., these bolts (i.e. end ribs) would be connected with the housing in the axial direction, therefore it would have been obvious for the ribs to be connected in the axial direction with the housing, since the bolts would make contact with the housing of Muller et al. in the axial direction.

For claim 6, the radial webs are formed on the plate (i.e. support element) of Muller et al. and also illustrates in figure 3 that the shaft (reference numeral 55) is in the center (i.e. base body) of the plate, therefore Muller et al. discloses the radial webs being a part of the support element and protruding radially from the base body holding the motor shaft.

For claim 7, Muller et al. illustrates in figure 3 a bearing bush (reference numeral 58) holding the motor shaft and integrated in the center (i.e. base body) of the support element.

For claim 8, Muller et al. already illustrates the bearing bush being a part of the base body of the support element (see figure 3, and explanation for claim 7 above).

For claim 9, Muller et al. illustrates in figure 3 the bearing bush disposed in the central opening of the base body of the support element.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. (US Patent No.: 4007390), and further in view of Sesselmann et al. (PCT Publication No.: WO 120753 A1), Blanchard et al. (US Patent No.: 4866321), and Watanabe et al. (US Patent No.: 5357272).

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For claim 10, Muller et al. and Sesselmann et al. disclose a drive device for adjusting devices in motor vehicles comprising an axial field motor having a motor shaft, a gear mechanism which is connected to the motor shaft and with a drive element of the adjusting device, and the radial forces stemming from the motor shaft being introduced into the housing of the axial field motor through axially extending positive locking regions of the radial webs for the same reasons given for claim 1 above. Blanchard et al. discloses the axially extending positive locking regions comprising radially aligned end ribs of the webs which engage in positive locking elements of the housing for the same reasons given for claim 3 above. Muller et al. discloses the radial webs being a part of the support element and protruding radially from the base body holding the motor shaft for the same reasons given for claim 6 above. Muller et al. also discloses the bearing bush for holding the motor shaft being integrated in the base body of the support element and the bearing bush inserted in the central opening of the base body of the support element for the same reasons given for claims 7 and 9 above. These references do not teach a free standing outer collar of the bearing bush adjoining an end face of the support element.

It would have been obvious to include a collar, such as a protrusion on the bearing, to adjoin the bearing onto the support element, since it is within the knowledge of a person having ordinary skill in the art to make a protrusion on the bearing for the purposes of fixing the bearing inside the support element, such as the protrusion shown on the bearing of the invention of Watanabe et al. referenced by numeral 17 on figure 2.

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9. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. (US Patent No.: 4007390), and further in view of Sesselmann et al. (PCT Publication No.: WO 120753 A1), Blanchard et al. (US Patent No.: 4866321), and Murakami et al. (US Patent Application Pub. No.: US 2001/0040067 A1).

For claim 12, Muller et al. and Sesselmann et al. disclose a drive device for adjusting devices in motor vehicles comprising an axial field motor having a motor shaft, a gear mechanism which is connected to the motor shaft and with a drive element of the adjusting device, and the radial forces stemming from the motor shaft being introduced into the housing of the axial field motor through axially extending positive locking regions of the radial webs for the same reasons given for claim 1 above. Blanchard et al. discloses the axially extending positive locking regions comprising radially aligned end ribs of the webs which engage in positive locking elements of the housing for the same reasons given for claim 3 above. Muller et al. discloses the radial webs being a part of the support element and protruding radially from the base body holding the motor shaft for the same reasons given for claim 6 above. The references do not teach a ring that is mounted between the radially aligned end ribs of the webs of the support element and the housing.

It would have been obvious to a person of ordinary skill in the art to resolve the tolerances of the mounting between the support element and the two-part housing by using the technique of mounting an elastic ring in between the support element and the housing, since this technique of using elastic rings is known in the art, as demonstrated in the invention of Murakami et al. (reference numeral 17, figure 15).

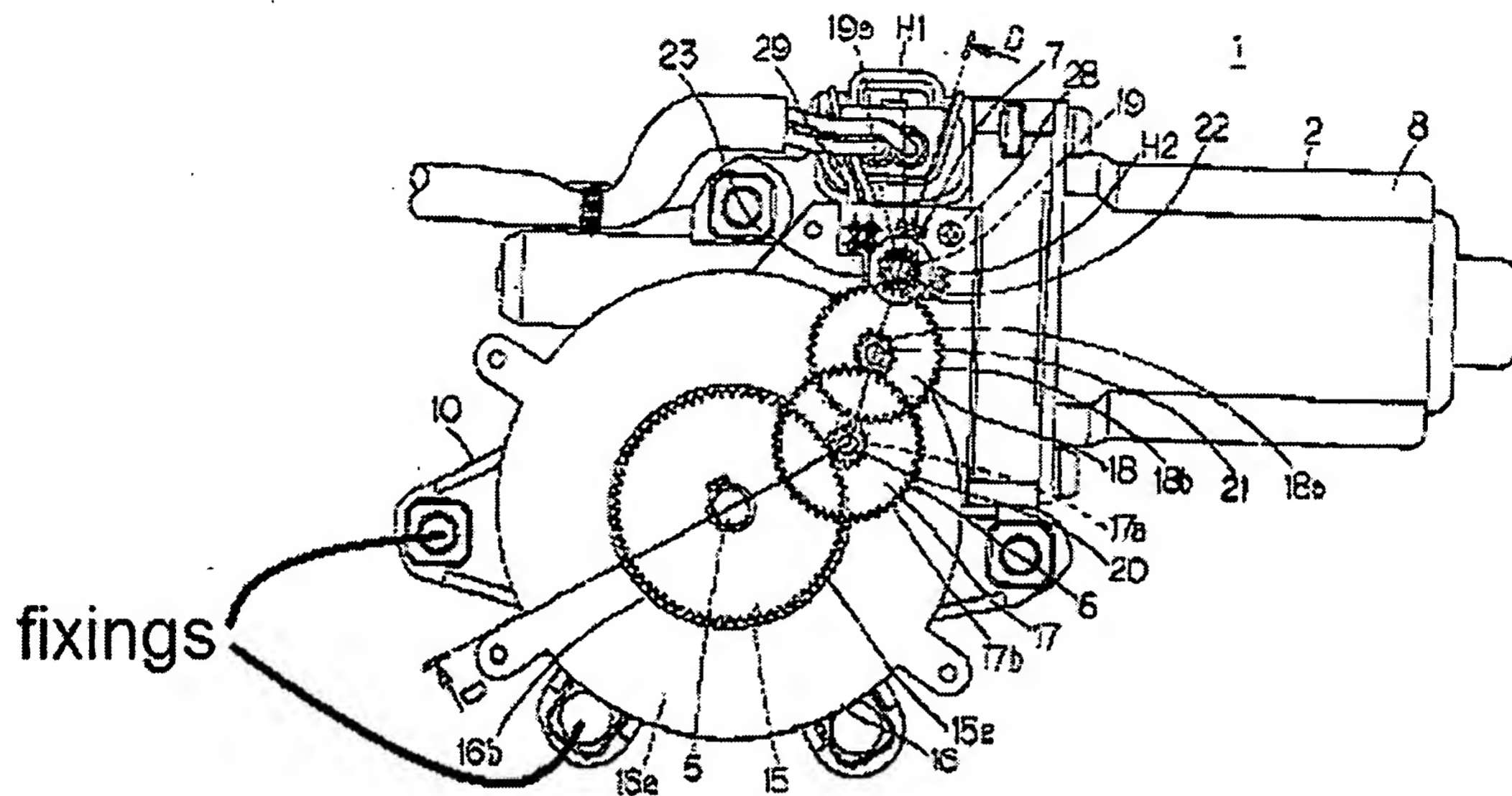
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For claim 16, Muller et al. discloses a two shell housing, and with the elastic ring similar to that used by Murakami et al. and the end ribs used by Blanchard et al., it would have been obvious to have a twin shell housing whose one housing shell is connected through the elastic ring to the end ribs of the radial webs of the support element, since it would be within the knowledge of a person skilled in the art to modify the invention shown in figure 3 of Muller et al. to include the elastic ring and end ribs taught by Murakami et al. and Blanchard et al. and were known at the at the time the invention was made to make the configuration of the claimed invention.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., Sesselmann et al., Blanchard et al., and Murakami et al. as applied to claims 12 and 16 above, and further in view of Niki et al. (Japanese Patent Document No.: JP 2001069722 A).

For claim 17, Niki et al. illustrates fixings which can be used to connect the drive device to a holding device (see figure below).

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It would have been obvious to include the fixings on the twin shell housing holding the elastic ring, since the fixings of Niki et al. is used for a drive device (see translation, Technical Field), the same technological field as the claimed invention.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. and Sesselmann et al. as applied to claim 1 above, and further in view of Bustamante et al. (US Patent No.: 5982058).

For claim 13, the inventions of Muller et al. and Sesselmann et al. disclose the claimed invention except for the motor shaft being connected to the rotor discs which are mounted on two end faces of a stator.

Bustamante et al. discloses shaft (reference numeral 52, see figure 2) connected to rotor discs (reference numerals 30, 38), which are on opposite faces of the stator (reference numeral 40).

It would have been obvious to have the motor shaft connected to the rotor discs and have them on opposite faces of the stator, since Bustamante et al. uses this technique for an axial field motor (see figure 2), and a person of ordinary skill in the art at the time the invention was made could use this configuration of Bustamante et al. to create the axial field motor of the claimed invention.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. and Sesselmann et al. as applied to claims 1 and 14 above, and further in view of Niki et al. (Japanese Patent Document No.: JP 2001069722 A).

For claim 15, it would have been obvious to have the gear wheels mesh with the pinion and connected coaxially to a second pinion of a second gear stage which meshes with a second gear wheel, since the motor taught by Niki et al. illustrates this limitation in figure 1, and a person of ordinary skill in the art could have used this configuration in the inventions of Muller et al. and Sesselmann et al. for producing the gear structure of the claimed invention.

Response to Arguments

13. Applicant's arguments, see pages 9-11, filed April 18, 2007, with respect to the rejection(s) of claim(s) 11 and 13 under 35 U.S.C. 112 and claims 1-9, 14, 15, and 18 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of

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rejection is made in view of newly found prior art references, and explanations of the new grounds of rejection are explained above in this action.

Claims 10, 12, 16, and 17, which were objected to in the prior action and further amended in Amendment filed April 18, 2007, are currently rejected upon newly found prior art references in this action.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Adachi et al. (US Patent Application Pub. No.: US 2002/0020239 A1), Tawse (US Patent No.: 4297604).

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex W. Mok whose telephone number is (571) 272-9084. The examiner can normally be reached on 7:30-5:00 Eastern Time, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Alex W. Mok
Examiner
Art Unit 2834

A.M.


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